Washington State Department of Ecology

An Environmental Management System Alternative to Pollution Prevention Planning

2012 -2013 Webinar Series Partners:

National Pollution Prevention Roundtable
Stewardship Action Council
The Auditing Roundtable

2012 -2013
Webinar Series Overview

- **Introduction to EMS – National Pollution Prevention Roundtable**

  September 25, 2012 (90 minutes)

  – Introduction to Ecology's EMS Program

  – Why EMS?

  – Environmental policy

  – Environmental aspects

- **Introduction to EMS – Part 2 National Pollution Prevention Roundtable**

  October 16, 2012 (60 minutes)

  – Objectives & targets

  – Introduction to Ecology's EMS Program (repeated)

2012 -2013 Webinar Series Overview

- **EMS Implementation Case Studies – Stewardship Action Council (November – December 2012)**

  November 5, 2012
    - Monitoring & Measurement
    - Communications & Engagement
    - Ecology EMS Guidance

- **EMS Basic Auditing Training – The Auditing Roundtable (February – April 2013)**
    - EMS auditing techniques
    - Ecology EMS Guidance

Ecology EMS Alternative

- Provides flexible approach to P2 planning.
- Meets RCW 70.95C; Chapter 173-307 WAC requirements
- Work with Ecology to demonstrate operating EMS is in place.

Ecology's Pollution Prevention Criteria

2.1 Pollution Prevention Policy

2.1.1 Policy Components

2.1.2 Continual Improvement

Ecology's Pollution Prevention Criteria

2.2 Implementation

2.2.1 Objectives & Targets

2.2.2 Roles & Responsibilities

2.2.3 Employee Training & Involvement

Ecology's Pollution Prevention Criteria

2.3 Monitoring & Measurement

2.3.1 Periodic Assessment

2.3.2 Annual Performance Report

Ecology's Pollution Prevention Criteria

3.0 Withdrawal of Approval

- **Failure to submit annual report**
- **Compliance issues**
- **Ecology may withdraw approval**

TurboPlan: what is it?

- Ecology's new web application for pollution prevention planners.

- Visual displays of hazardous substance use and hazardous waste.

- For most facilities this is their sole reporting tool, for all the required information.

TurboPlan: how do EMS facilities use it?

- Report hazardous substance use online (guidance will be updated soon)
- Report other information either:
  - Online in TurboPlan or…
  - …by e-mail to Ecology staff until next version of software, which will allow attaching and submitting your EMS documents customized to your facility

Environmental Management Systems Training
2012 -2013 Partners

Introduction to EMS Webinar

September 25, 2012

Jeffrey Burke
National Pollution Prevention Roundtable

Before Developing an EMS

- **Resources** - Identify needed and available resources for external training, support, and assistance either through a consulting firm or nonprofit technical assistance provider.

- **Management integration** - Review existing management systems to determine how an EMS may fit. Don't reinvent the wheel.

- **Mentoring** - Consider contacting similar organizations which have completed EMSs for input regarding the process and options for obtaining training and technical assistance during the EMS development process.

Before Developing an EMS

- **Fenceline** - Determine the area in which the organization intends to implement its EMS (called the "fenceline"). The EMS fenceline may encompass all operations at a particular facility or selected processes of one or more facilities (e.g., biosolids management, security) or a department or division within the organization.

- **Phase-in** - Recognize that a complete EMS need not be developed all at once - it can be introduced step by step.

- **Team** - Identify an EMS "champion" and members of an EMS core team. To assure success, it is important for the EMS team to communicate regularly with and involve other employees in the organization .

Elements of an Environmental Management Systems (EMS)
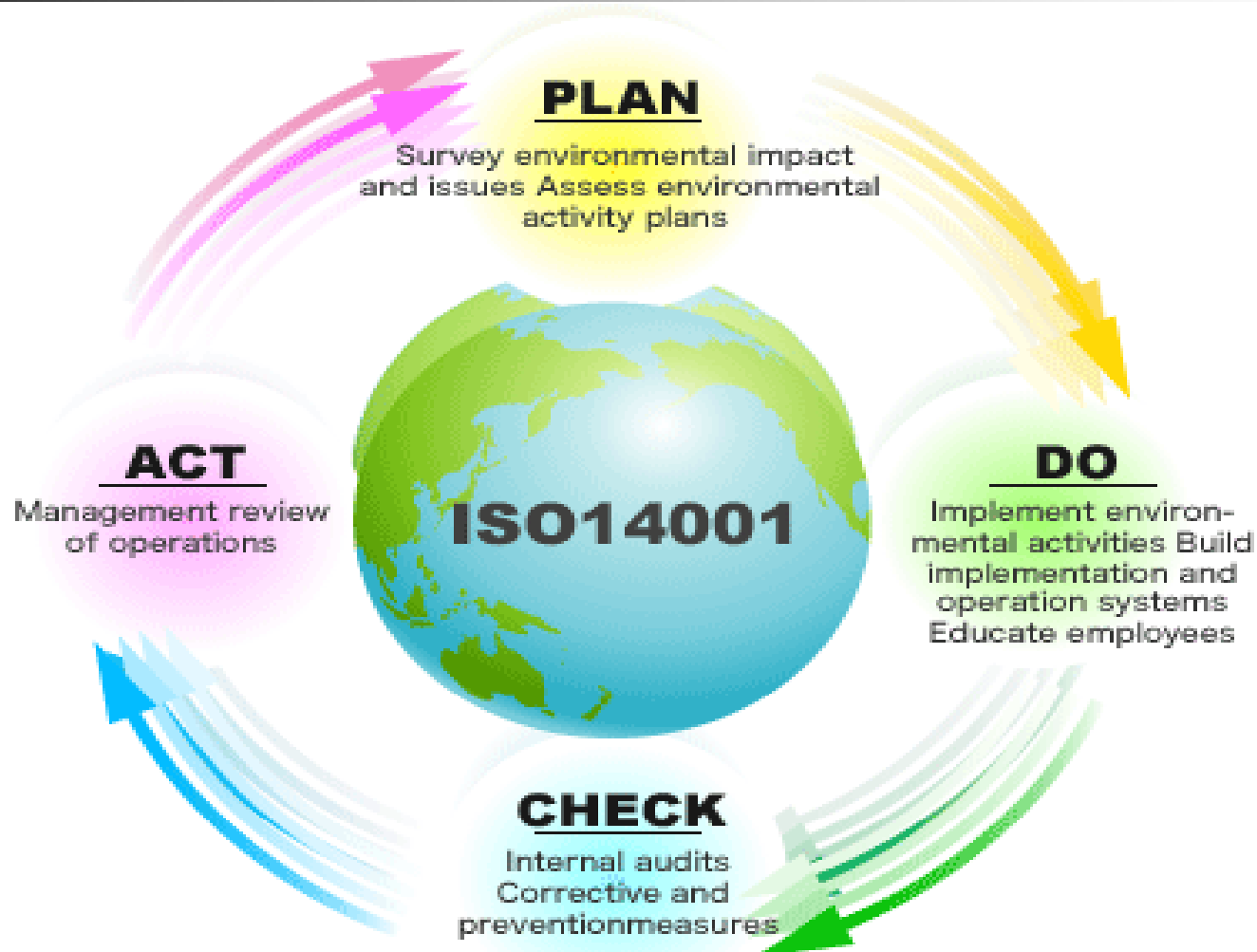
Elements of an EMS

- Commitment and environmental policy
- Development of an environmental plan
- Implementation and operation of the plan
- Monitoring and evaluation
- Management review and action
- Repetition of the cycle, providing continual improvement

Flexibility of an EMS

- Includes strategic planning, organizational structure, and implementation of an environmental policy as an integrated part of the business enterprise.

- Can be implemented in an organization in many different ways, depending on the organization's activities and needs.

- Can be adopted by organizations of all sizes and types, including government agencies and small businesses.

- Does not impose new technical requirements, nor is it a substitute for existing regulatory standards.

Flexibility of an EMS

- Should be tailored to an organization's processes and goals.

- Should involve everyone in the organization to understand, reduce, and manage the environmental impacts of daily activities with greater efficiency and control.

- Encourages an organization to continually improve its environmental performance.

Benefits of EMS

- Integrate environmental considerations into day-to-day operations.
- Improve overall environmental performance and compliance.
- Operate more efficiently and reduce costs.
- Reduce pollution generation.
- Demonstrate improved performance to outsiders, including regulatory agencies and customers.

Breakdown of Components:

- Environmental Policy
  - Serves as the organization's "vision".
  - Should reflect strong executive level leadership.
  - Forms the basis upon which the organization sets it objectives and targets
  - Should be communicated to all persons

Breakdown of Components:

- Planning
  - Identifies the activities within the organization which have the potential to affect the environment.
  - Identifies the impacts of those activities.
  - Identifies regulatory requirements that need to be met.
  - Sets objectives, targets and performance indicators
  - Develops an action plan.

Breakdown of Components:

- Implementation and Operation
  - Identifies roles and responsibilities.
  - Provides for training, awareness raising and increased competencies.
  - Provides for communications.
  - Provides for information exchanges.
  - Develops standard operating procedures.
  - Includes emergency preparedness and response.

Breakdown of Components:

- Checking and Corrective Action
  - Involves monitoring and measurement.
  - Includes preventative and corrective actions.
  - Controls records.
  - Audits.

Breakdown of Components:

- Management Review
  - Assures the adequacy of an EMS:
    - Systematic reviews at specified intervals;
    - Evaluation of goals and objectives.

17 Steps of an EMS

- **Plan**
  - **Environmental Policy** - Develop a statement of the organization's commitment to the environment; use policy as a framework for planning and action.
  - **Environmental Aspects and Impacts** - Identify environmental attributes of products, activities and services and their effects on the environment.
  - **Legal and Other Requirements** - Identify and ensure access to relevant laws and regulations.
  - **Objectives and Targets** - Set environmental goals for the organization .

17 Steps of an EMS

- **Do**
  - **Environmental Management Program** - Plan actions to achieve objectives and targets.
  - **Structure and Responsibility** - Establish roles and responsibilities within the organization; identify needed resources.
  - **Training, Awareness and Competence** - Ensure that employees are aware of and able to perform their environmental responsibilities.
  - **Communication** - Develop processes for internal and external communication on environmental management issues.

17 Steps of an EMS

- **Do**
  - **EMS Documentation** - Maintain information about the EMS and related documents.
  - **Document Control** - Ensure effective management of procedures and other documents.
  - **Operational Control** - Identify, plan, and manage the organization's operations and activities in line with the policy, objectives, and targets.
  - **Emergency Preparedness and Response** - Develop procedures for preventing and responding to potential emergencies.

17 Steps of an EMS

- **Check**
    - **Monitoring and Measuring - Monitor key activities and track performance; conduct periodic assessments of compliance with legal requirements.**
    - **Nonconformance and Corrective and Preventative Action - Identify and correct problems and prevent recurrences.**
    - **Records - Keep adequate records of EMS performance.**
    - **EMS Audit - Periodically verify that the EMS is effective and achieving objectives and targets.**
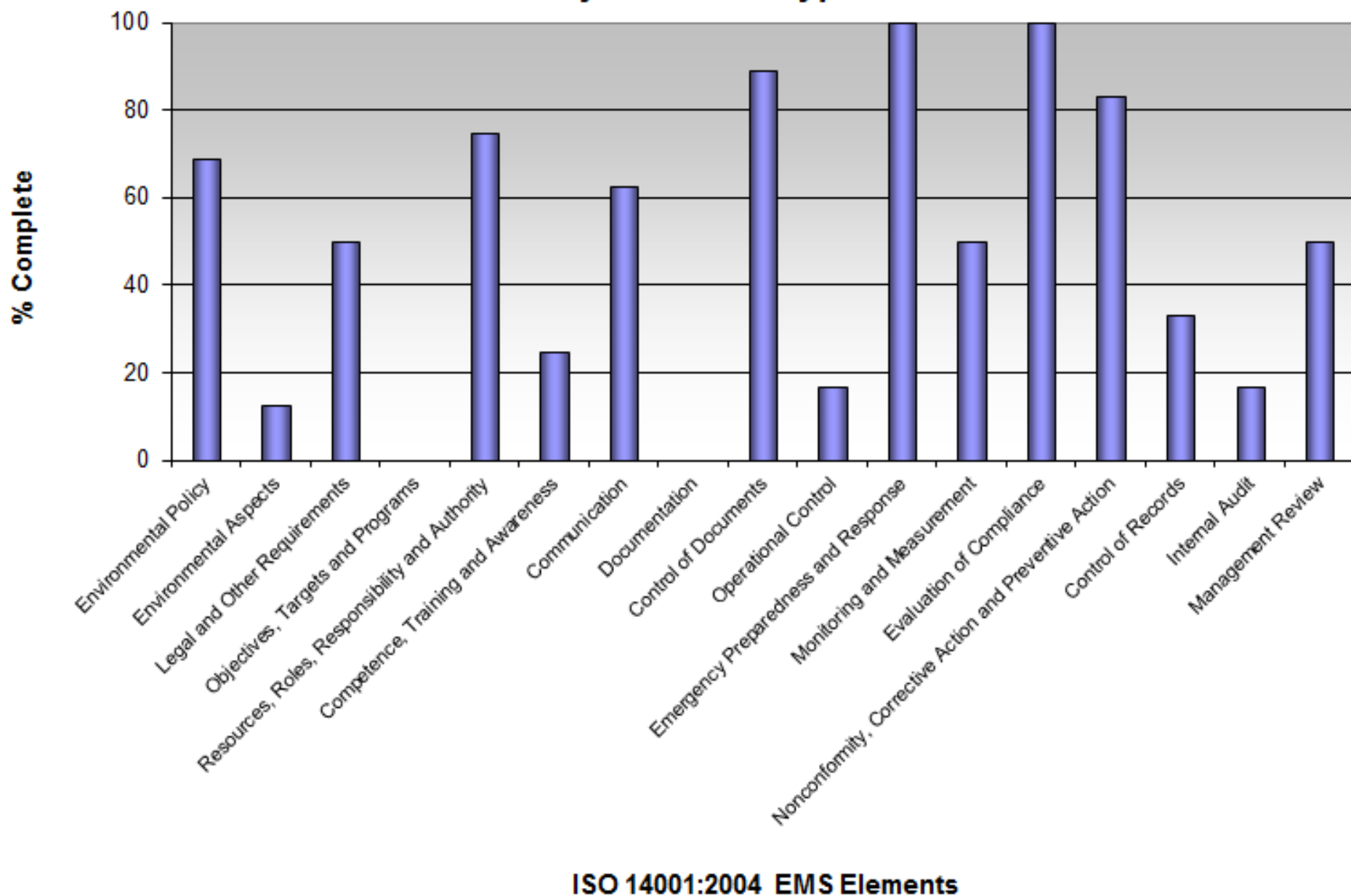
17 Steps of an EMS

- **Act**
  - Management Review - Review the EMS with an eye to continuous improvement.

Gap Analysis

- Series of questions on each of the 17 elements of an EMS
  - Gap Analysis Tool Kit
    - XL Spreadsheet format
  - Contact Ken Zarker for a copy

Facility Name and Type

ISO 14001:2004 EMS Elements

EPA Region 3 Example

- http://www.epa.gov/region3/ems/

Questions?

- Thank You For Your Participation

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